

U.S. Geological Survey Data Series 542

FGDC Metadata

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- Identification Information
- Data Quality Information
- Spatial Reference Information
- Spatial Data Organization Information
- Entity and Attribute Information
- <u>Distribution Information</u>
- Metadata Reference Information

Identification_Information:

Citation:

Citation_Information:

Originator: Chandra A. Dreher Originator: James G. Flocks Originator: Mark A. Kulp Originator: Nicholas F. Ferina Publication_Date: 2010

Title:

Archive of Sediment Data Collected around the Chandeleur Islands and Breton Island in 2007 and 1987 (Vibracore Surveys: 07SCC04, 07SCC05, and 87039)

Geospatial_Data_Presentation_Form:

Core Description Sheets (JPEG / PDF), Digitized Core Logs (XLS, TXT), Grain Size (XLS) and Core Photographs (JPEG / PDF) sections presented in an interactive HTML format with Study Area Maps as JPEG / GIF images. Map shapefiles (digital vector data) are available in the ARC folder of this DVD.

Series_Information:

Series_Name: U.S. Geological Survey Data Series

Issue_Identification: 542

Publication_Information:

Publication_Place: St. Petersburg, FL. Publisher: U.S. Geological Survey

Description:

Abstract:

In 2006 and 2007, the U.S. Geological Survey (USGS) and collaborators at the University of New Orleans (UNO) collected high-resolution seismic profiles and subsurface cores around the Chandeleur and Breton Islands, Louisiana. To ground-truth the acoustic seismic surveys conducted in 2006, 124 vibracores were acquired during the 07SCC04 and 07SCC05 cruises in 2007. These cores were collected within the back-barrier, nearshore, and offshore environments. The surveys were conducted as part of a post-hurricane assessment and sediment resource inventory for the Barrier Island Coastal Monitoring (BICM) project. Vibracores were collected offshore using the USGS R/V G.K. Gilbert, while the terrestrial, back-barrier, and nearshore vibracores were collected from the UNO R/V Greenhead. This report serves as an archive of sediment data from two concurrent vibracore surveys (cruises 07SCC04 and 07SCC05) from around the Breton and Chandeleur Islands in 2007 and also documents sediment data from vibracores collected offshore of the Chandeleur Islands in 1987 (cruise 87039). The 1987 vibracores were collected through the collaborated efforts of the USGS, Louisiana Geological Survey (LGS), and Alpine Ocean Seismic.

Purpose:

The 07SCC04 and 07SCC05 core locations were selected to ground-truth stratigraphic interpretations from seismic profiles acquired during previous surveys (Baldwin and others, 2009; Twichell and others, 2009) and to directly sample stratigraphic variation in the study area (Flocks and others, 2009). Additionally, this report archives the 87039 cruise vibracores collected offshore of the Chandeleur Islands in 1987. The CI_87 vibracores were collected to ground-truth the stratigraphic interpretations from seismic profiles acquired in 1987 (Kindinger and others, 1989; Kindinger and others, 1991; Brooks and others, 1995).

Supplemental_Information:

The USGS St. Petersburg Coastal and Marine Science Center (SPC&MSC) - in St. Petersburg, FL, assigns a unique identifier to each cruise or field activity. For example, 07SCC04 designates the year the data were collected (2007) for the Subsidence and Coastal Change (SCC) cruise identifier, and the field activity number (04) denotes the fourth SCC field activity of the year. Similarly, 87039 is a USGS Woods Hole Science Center (Woods Hole, MA) cruise identifier. Refer to http://walrus.wr.usgs.qov/infobank/programs/html/definition/activity.html for a detailed description of the method used to assign the cruise ID. More information on all field activities can be found in the Field Activity Collection System (FACS) logs and scanned observer's logbooks (Field Logs), as well as formal FGDC Metadata (07SCC04, 07SCC05, and 87039).

A standardized naming convention was established to allow for better management of vibracores that can be identified by cruise and core number. The naming convention used for each core is as follows: yyabc##, where 'yy' are the last two digits of the year in which the core was collected, 'abc' is a 2- or 3-letter abbreviation for the cruise location or project type (for example, BI for Breton Island or SCC for Subsidence and Coastal Change), and '##' is a 2-digit number representing a specific core. Vibracores collected by the USGS R/V G.K. Gilbert (cruise 07SCC04) are identified by 07SCC## and offshore Breton Island, 07BI##. The terrestrial, back-barrier, and nearshore vibracores collected from the R/V Greenhead (cruise 07SCC05) are identified as 07SCC_##Gh. For 07SCC05 vibracores, the identifier is modified with '_##dd', the 'dd' being a two-letter abbreviation representing the research vessel from which the core was

taken. Vibracores collected in 1987 are identified by a similar naming convention 'ab_yy $_{mm}$ '; these offshore vibracores collected from cruise 87039 are identified as $\underline{\text{CI}}_{87}$. Detailed information about each cruise can be found in the digital FACS and equipment logs, in the Field Logs section.

This report is divided into thirteen sections: Home page, Acronyms and Abbreviations, Disc Contents, Methods, Maps, Core Data Table, Core Description Sheets, Digitized Core Logs, Grain-Size Data, Core Photographs, Field Activity Logs, Federal Geographic Data Committee (FGDC) Metadata, and Software.

```
Time Period of Content:
     Time_Period_Information:
          Multiple_Dates/Times:
                Single Date/Time:
                      Calendar_Date: 19871409
                Single_Date/Time:
                     Calendar_Date: 19872509
                Single_Date/Time:
                     Calendar_Date: 20071806
                Single_Date/Time:
                     Calendar_Date: 20072606
     Currentness_Reference: Data collection interval
Status:
     Progress: Complete
     Maintenance_and_Update_Frequency: None planned
Spatial_Domain:
     Bounding Coordinates:
           West_Bounding_Coordinate: -89.08800
          East_Bounding_Coordinate: -88.52967
          North_Bounding_Coordinate: 30.75000
          South_Bounding_Coordinate: 29.34467
Keywords:
     Theme:
          Theme_Keyword_Thesaurus: None
           Theme Keyword: Vibracoring Survey
           Theme Keyword: R/V G.K. Gilbert
           Theme_Keyword: Subsidence and Coastal Change (SCC)
          Theme Keyword: Vibracores
          Theme_Keyword: G-5-07-GM
          Theme_Keyword: 07SCC05
          Theme Keyword: G-4-07-GM
          Theme_Keyword: 07SCC04
          Theme_Keyword: 87039
          Theme_Keyword: Ecosystem Change and Hazard Susceptibility
           Theme_Keyword: Coastal and Marine Geology Program (CMG)
          Theme_Keyword: Barrier Island Comprehensive Monitoring (BICM)
           Theme_Keyword: R/V Greenhead
           Theme_Keyword: Northern Gulf of Mexico (NGOM)
          Theme Keyword: Sediment Data Archive
     Place:
```

Place_Keyword_Thesaurus: None

Place_Keyword: Louisiana
Place_Keyword: Gulf of Mexico

Place_Keyword: Chandeleur Islands

Place_Keyword: Mississippi Place_Keyword: Breton Island Place Keyword: Barrier Islands

Access_Constraints: None. These data are held in the public domain.

Use_Constraints:

The <u>U.S.</u> Geological Survey and the University of New Orleans request to be acknowledged as originators of this product in future products or in derivative research. *Point_of_Contact:*

Contact_Information:

Contact_Person_Primary:

Contact_Person: James Flocks

Contact_Organization: U.S. Geological Survey

Contact_Position: Geologist

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Address_Type: mailing and physical Address: 600 4th Street South

City: St. Petersburg
State_or_Province: FL
Postal_Code: 33701
Country: USA

Contact_Voice_Telephone: (727) 803-8747, ext. 3012 Contact_Electronic_Mail_Address: jflocks@usgs.gov

Browse_Graphic:

Browse_Graphic_File_Name: ..Maps/CI_Study_Area_map_SAM.jpq Browse_Graphic_File_Description:

A Study Area Map showing the location of 07SCC04, 07SCC05, and 87039 cruises vibracore data. This map is an overview of the entire study area (CI Study Area Map.html). The study area map has been divided regionally from north to south into Sections A, B, and C (northern, central, and southern, respectively), and each section is further divided in to areas. Clicking on each outlined section will access the selected map's areas. These area maps zoom in on the vibracore locations. In each area, the vibracores data for individual vibracores are linked to the Core Data Table, which is accessible by clicking on the vibracore's mapped data-point or the associated Core ID of the vibracore. All printable maps can be found in the folder ...Maps/SCC DS Maps print. All map shapefiles and ArcGIS files are found in the folder ...Software/ARC.

Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: ..Maps/CI_Section_A_html.jpg

Browse Graphic File Description:

Location map's northern section of the study area that includes 07SCC04, 07SCC05, and 87039 vibracore data. This graphic is for vibracore data collected in Section A, divided further into six areas (<u>CI Section A Map.html</u>; alternatively, refer to Section A links on the <u>Study Area Maps</u> page).

Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: ..Maps/CI_Section_A_Area_1_html.jpg

Browse_Graphic_File_Description: Location map's western area (1) of Section A. This graphic is for vibracore data of 07SCC04, 07SCC05, and 87039 cruises collected in Section A, Area 1 (CI Sec A Area1 Map.html). Browse_Graphic_File_Type: JPEG Browse_Graphic: Browse_Graphic_File_Name: ..Maps/CI Section A Area 2 html.jpg Browse_Graphic_File_Description: Location map's most northern central area (2) of Section A. This graphic is for vibracore data of 07SCC04, 07SCC05, and 87039 cruises collected in Section A, Area 2 (CI_Sec_A_Area2_Map.html). Browse_Graphic_File_Type: JPEG Browse_Graphic: Browse_Graphic_File_Name: ..Maps/CI_Section_A_Area_3_html.jpg Browse_Graphic_File_Description: Location map's northern central area (3) of Section A. This graphic is for vibracore data of 07SCC04, 07SCC05, and 87039 cruises collected in Section A, Area 3 (CI Sec A Area3 Map.html). Browse_Graphic_File_Type: JPEG Browse_Graphic: Browse_Graphic_File_Name: ..Maps/CI_Section_A_Area_4_html.jpg Browse_Graphic_File_Description: Location map's southern central area (4) of Section A. This graphic is for vibracore data of 07SCC04, 07SCC05, and 87039 cruises collected in Section A, Area 4 (CI Sec A Area4 Map.html). Browse_Graphic_File_Type: JPEG Browse Graphic: Browse_Graphic_File_Name: ..Maps/CI Section A Area 5 html.jpq Browse_Graphic_File_Description: Location map's most southern central area (5) of Section A. This graphic is for vibracore data of 07SCC04, 07SCC05, and 87039 cruises collected in Section A, Area 5 (CI_Sec_A_Area5_Map.html). Browse_Graphic_File_Type: JPEG Browse_Graphic: Browse_Graphic_File_Name: ..Maps/CI_Section_A_Area_6_html.jpg Browse_Graphic_File_Description: Location map's eastern area (6) of Section A. This graphic is for vibracore data of 07SCC04, 07SCC05, and 87039 cruises collected in Section A, Area 6 (CI Sec A Area6 Map.html). Browse_Graphic_File_Type: JPEG Browse_Graphic: Browse_Graphic_File_Name: ..Maps/CI_Section_B_html.jpg Browse Graphic File Description: Location map's central section of the study area that includes 07SCC04, 07SCC05, and 87039 vibracore data. This graphic is for vibracore data collected in Section B, divided further into five areas (CI Section B Map.html; alternatively, refer to Section B links on the Study Area Maps page). Browse_Graphic_File_Type: JPEG

Browse_Graphic_File_Name: ..Maps/CI_Section_B_Area_1_html.jpg

Browse Graphic:

Browse_Graphic_File_Description: Location map's northwestern area (1) of Section B. This graphic is for vibracore data of 07SCC04, 07SCC05, and 87039 cruises collected in Section B, Area 1 (CI Sec B Area1 Map.html). Browse_Graphic_File_Type: JPEG Browse_Graphic: Browse_Graphic_File_Name: ..Maps/CI Section B Area 2 html.jpg Browse_Graphic_File_Description: Location map's most central area (2) of Section B. This graphic is for vibracore data of 007SCC04, 07SCC05, and 87039 cruises collected in Section B, Area 2 (CI_Sec_B_Area2_Map.html). Browse_Graphic_File_Type: JPEG Browse_Graphic: Browse_Graphic_File_Name: ..Maps/CI_Section_B_Area_3_html.jpg Browse_Graphic_File_Description: Location map's northeastern area (3) of Section B. This graphic is for vibracore data of 07SCC04, 07SCC05, and 87039 cruises collected in Section B, Area 3 (CI Sec B Area3 Map.html). Browse_Graphic_File_Type: JPEG Browse_Graphic: Browse_Graphic_File_Name: ..Maps/CI_Section_B_Area_4_html.jpg Browse_Graphic_File_Description: Location map's southwestern area (4) of Section B. This graphic is for vibracore data of 07SCC04, 07SCC05, and 87039 cruises collected in Section B, Area 4 (CI Sec B Area4 Map.html). Browse_Graphic_File_Type: JPEG Browse Graphic: Browse_Graphic_File_Name: ..Maps/CI Section B Area 5 html.jpg Browse_Graphic_File_Description: Location map's southeastern area (5) of Section B. This graphic is for vibracore data of 07SCC04, 07SCC05, and 87039 cruises collected in Section B, Area 5 (CI_Sec_B_Area5_Map.html). Browse_Graphic_File_Type: JPEG Browse_Graphic: Browse_Graphic_File_Name: ..Maps/CI_Section_C_html.jpg Browse_Graphic_File_Description: Location map's southern section of the study area that includes 07SCC04, 07SCC05, and 87039 vibracore data. This graphic is for vibracore data collected in Section C, divided further into two areas (CI Section C Map.html; alternatively, refer to Section C links on the Study Area Maps page). Browse_Graphic_File_Type: JPEG Browse Graphic: Browse_Graphic_File_Name: ..Maps/CI Section C Area 1 html.jpg Browse_Graphic_File_Description: Location map's western area (1) of Section C. This graphic is for vibracore data of 07SCC04, 07SCC05, and 87039 cruises collected in Section C, Area 1 (CI_Sec_C_Area1_Map.html).

Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: ..Maps/CI_Section_C_Area_2_html.jpg

Browse_Graphic_File_Description:

Location map's eastern area (2) of Section C. This graphic is for vibracore data of 07SCC04, 07SCC05, and 87039 cruises collected in Section C, Area 2 (CI Sec C Area2 Map.html).

Browse_Graphic_File_Type: JPEG

Browse_Graphic:

Browse_Graphic_File_Name: ..Software/ARC/Arc_CI.zip

Browse_Graphic_File_Description:

The Arc_CI.zip volume contains digital vector files for the study area map included in this archive. The study area map document (.mxd) utilize a naming scheme incorporating the study area (Chan), for Chandeleur Island, would be Chan_07_Basemap.mxd. These maps display 07SCC and CI87 vibracore location data points. Shapefiles of the vibracore location datasets use a similar naming scheme to that of the maps. They are named using a shortened name of the cruise (07SCC or CI87). For example, core locations for 07SCC04, 07SCC05 would be named 07SCC.shp. The interactive maps (on the HTML pages) show the 07SCC surveys (red dots) and the CI87 surveys (blue dots). In the Arc_CI folder are the shapefiles, accompanying ESRI ArcView files, .xml metadata, and a Raw_Data folder with the 07SCC and CI87 vibracore location data points in an .csv file. Alternatively, refer to the ArcGIS Project Readme.doc for greater detail on naming of the Arc_CI.zip files.

Browse_Graphic_File_Type: .Zip Data_Set_Credit:

The USGS Coastal and Marine Geology Program (St. Petersburg, FL and Woods Hole, MA) and the University of New Orleans, provided funding, 1987 cruise report, and 2007 field support for the collection and analysis of sediment data archived in this report. Additional funding was provided by the U.S. Fish and Wildlife Service (FWS) and the Louisiana Department of Natural Resources (LDNR). We thank *R/V G.K. Gilbert* captain Keith Ludwig (USGS, St. Petersburg, FL) for assistance in data collection. Kyle Kelso (Jacobs Technology Inc., St. Petersburg, FL) prepared the ArcGIS and map files used in this report. This document was improved through reviews by Arnell Harrison and Julie Bernier (USGS, St. Petersburg, FL).

Data_Quality_Information:

Attribute_Accuracy:

Attribute_Accuracy_Report:

The validity or accuracy of core description sheets and digitized core logs is highly qualitative and depends on describer's discretion and interpretations, and physical variables such as software and operating conditions for the digitizing equipment. Visual inspection of the processed digitized profile images rendered from the handwritten description sheets did not show any major anomalies. Grain-size data for 07SCC04 and 07SCC05 cruises rendered a quantitative and fairly accurate account of the grain-size distribution throughout the cores. The sand percentages reported for 07SCC04 and 07SCC05 cruises were observed and analyzed. The accuracy of mapped core locations is based on coordinates and GPS noted in handwritten logbooks in the field. These field notes can be found as FACS logs or on the logbook page and within the FACS folder. The map datasets include 07SCC04, 07SCC05, and 87039 cruises and display vibracore locations.

Note: The maps presented here are NOT for navigational purposes.

Logical_Consistency_Report:

This dataset derives from several cruises with consistent instrument calibrations. However, acquisitions of core sites during 07SCC04 and 07SCC05 cruises were acquired using differential GPS in WGS84. The acquisitions of core sites during 87039 cruise was with Loran C, satellite, and gyrocompass.

Completeness_Report:

These data were collected from multiple sources aboard multiple cruises and are therefore inherently incomplete. However, care was taken to make this a comprehensive archive combining the geologic details of all sediment cores collected for the 07SCC04, 07SCC05, and 87093 cruises. Cruise-specific completeness information is as follows. Cruise 07SCC04: As a result of a recording error in the field, there is no core 07SCC79. Core 07SCC_55_v2 (alternatively labeled CI_87_55_v2) was collected from the same location as the CI_87_55 core from the 87039 cruise. There are seven additional cores named for their location near Breton Island: 07BI 02 though 07BI 08. For unknown reasons there was no core 07BI 01. A total of 91 cores was collected on this cruise. Cruise 07SCC05: A total of 33 cores were collected on this cruise. Cruise 87039: Four cores (CI 87 01 Curlew, CI 87 02 Curlew, CI 87 03 Curlew, and core CI_87_07_Curlew) were given a more descriptive core ID to indicate their location near Curlew Island; digitized core logs are not available for these four cores. The Core Data Table contains two entries for core CI 87 20. The first was described by Jack Kindinger (USGS) and was assigned the core ID CI_87_20A for this archive; the second was described by Dr. Gregg Brooks (Eckerd College) and was assigned CI 87 20B. No grain-size data analyses or core photographs exist for the CI_87 cores.

Positional_Accuracy:

Horizontal_Positional_Accuracy:

Horizontal_Positional_Accuracy_Report:

Positions of the cores were recorded and written in the field logbooks. Each core location for the 07SCC04 and 07SCC05 cruises was obtained by differential GPS. For positional accuracy for 87039 cores please refer to the publications cited and the Metadata Cruise Report (http://quashnet.er.usgs.gov/data/1987/87039/archive/87039rpt.pdf), or the FACS Logs page, or contact Alpine Ocean Seismic. For all GIS shapefiles, horizontal positions are specified in geographic coordinates. Latitudes and longitudes values are specified in WGS84 and reprojected to North American Datum of 1983 in decimal degrees.

Vertical_Positional_Accuracy:

Vertical_Positional_Accuracy_Report:

These data are not to be used for bathymetry. Vibracore data are relative to sea level. However, varying recorded static shifts of the data have been known to occur. The core and water depths are located on the vibracore description profiles and are recorded in the 07SCC04 and 07SCC05 logbooks. Water depths for 07SCC04 cores were recorded by a depth finder on the *R/V G.K. Gilbert*. The recovery lengths of the vibracore are recorded in the logbook for most cores of each cruise. To view vertical positional accuracy of 87039 cores, please refer to the publications cited and the Metadata Cruise Report (http://quashnet.er.usgs.gov/data/1987/87039/archive/87039rpt.pdf), or the FACS Logs page, or contact Alpine Ocean Seismic.

```
Lineage:
```

Source Information:

Source Citation:

Citation_Information:

Originator: Kindinger, J.L. Originator: Penland, S. Originator: Williams, S.J. Originator: Brooks, G.R. Originator: Suter, J.R. Originator: McBride, R.A. Publication_Date: 1991

Title:

Late Quaternary Geologic Framework, North-central Gulf of

Mexico

Series_Information:

Series_Name: Coastal Sediments '91

Issue_Identification: Vol. 1

Publication_Information:

Publication_Place: New York, NY USA

Publisher: American Society of Civil Engineers

Other_Citation_Details: p. 1096-1110

Type_of_Source_Media: Paper Source_Time_Period_of_Content: Time_Period_Information:

Single_Date/Time:
Calendar_Date: 1991

Source Currentness Reference: Publication Date

Source_Citation_Abbreviation: Kindinger and others, 1991

Source Contribution:

Contributed vibracore information for the 87039 cruise or 1987 Chandeleur Island cores. This includes, but is not limited to, logbook information files, vibracore profiles, and core location geographic coordinates.

Source_Information:

Source_Citation:

Citation_Information:

Originator: Flocks, J.G. Publication Date: 2004

Title:

Directions for converting analog sediment core description sheets to digital, spreadsheet format: Excel Macro Digitizing Program.

Geospatial_Data_Presentation_Form: Excel Macro Digitizing Program Publication_Information:

Publication_Place: St. Petersburg, FL USA

Publisher: U.S. Geological Survey

Type_of_Source_Media: Paper document and Microsoft Excel © macro processing program file, included in Dreher and others, 2008 (http://pubs.usgs.gov/ds/344/) and herein, the Programs_Data

folder within the Digitizing Methods folder or on the software page.

Source_Time_Period_of_Content:

Time_Period_Information:

Single_Date/Time:
Calendar_Date: 2004

Source Currentness Reference: Publication Date

Source_Citation_Abbreviation: Flocks, 2004

Source_Contribution:

Contributed (1) a document describing how to operate the digitizing and processing systems and (2) an Excel Macro Digitizing Program file that converts the digitized hard-copy sediment core description sheets to a spreadsheet format.

Process_Step:

Process_Description:

Vibracore location map creation: Latitudes and longitudes for vibracore locations were transferred from written field logbooks into excel files and values were processed to decimal degrees in North American Datum of 1983. The files were imported to ArcGIS 9.3 to create shapefiles, metadata, .mxd, and JPEG files. To create vibracore location maps for HTML pages, provided within this archive, the JPEG files were exported to Adobe Illustrator for further editing and saved in JPEG format. The coordinates for the 87039 cruise cores were obtained from the Infobank (Metadata Cruise Report http://quashnet.er.usqs.gov/data/1987/87039/archive/87039rpt.pdf) and publication source citation below. The USGS is the originator of all shapefiles.

Source_Used_Citation_Abbreviation: Kindinger and others, 1991

Process_Date: 2009 and 2010

Process_Step:

Process_Description:

Core Collection: Two similar types of vibracore systems were used to collect the 07SCC04 and 07SCC05 vibracores: 6.1-m and 9.1-m long aluminum core barrels were vibrated into the sediment using either a Rossfelder model P-3 electric motor (cruise 07SCC04 aboard the R/V G.K. Gilbert) or a Stow G-500 gas motor (cruise 07SCC05 aboard the R/V Greenhead). The 87039 (or CI_87) vibracores were taken by Alpine Ocean Seismic using a 12-m-long Alpine-type pneumatic vibracore apparatus (Kindinger and others, 1989; 1991; Brooks and others, 1995).

Process_Date: 2007 and 1987

Process_Step:

Process Description:

Core Description Sheets: Vibracores collected from the 07SCC04 and 07SCC05 surveys were transported to the core analysis laboratory at UNO for description, sampling, and archiving. Vibracores were cut lengthwise, and in some cases a sonicating knife was used to obtain a clean, undisturbed surface on one-half of the vibracore, lengthwise. This section was used to describe the core's contents on a core description sheet. Description includes, but is not limited to, sedimentary texture, observed sand, silt, and clay percents, bioturbation, shell abundance, sedimentary structures, physical characteristics, stratification type, interval sampled type, sample location information, and any other qualitative descriptions.

Process_Date: 2008

Process_Step:

Process Description:

Digitized Core Logs: This process required hand digitizing a paper copy of the core description sheets using a digitizing tablet; data were converted to an electronic spreadsheet format (Microsoft Excel) using a Visual Basic macro program. This macro program produced a spreadsheet-style output of the description sheet as XLS files that were saved as PDF and JPEG files for the HTML-based format used to present these data in the various parts of this archive. Information on the digitizing process can be found in Flocks (2004; 2008)(or Methods and Software page in this report). For step-by-step instructions on the process please contact James Flocks (iflocks@usqs.gov) for more information.

Source_Used_Citation_Abbreviation: Flocks, 2004

Process Date: 2008 and 2009

Process_Step:

Process_Description:

Core Photographs: Photographs the 07SCC04 and 07SCC05 vibracores were taken to visually represent the general physical properties of the core. To preserve detail about sediment texture, color, composition, bedding, and other physical characteristics recorded on the core description sheets can also be observed on the core photographs.

Process_Date: 2008

Process_Step:

Process_Description:

Grain-Size Data: Sediment samples from the 07SCC04 and 07SCC05 vibracores were analyzed at the USGS SPC&MSC (St. Petersburg, FL) using a Beckman Coulter LS 200 particle-size analyzer. The LS 200 uses laser diffraction to quickly and accurately measures the size distribution of sedimentary particles ranging from 0.0004 mm and 2 mm in diameter, providing quantitative measurements of size distribution in a customizable data output. Statistical moments that correspond to sorting, skewness, and kurtosis were also calculated following the procedure outlined in Folk (1968). Percent sand, silt, and clay were reported for each core interval as tables provided in the Core Data Table.

Process_Date: 2008 and 2009

Process_Step:

Process Description:

Core Data Table: All of the above core data can be found in the Core Data Table (<u>Data Table.html</u>) for the 07SCC04, 07SCC05, 87039 cruises. This data table can be accessed by the section links at the top and bottom of each page in this archive or by navigating to the individual cores located on the <u>Study Area Map</u>. Clicking on a core's mapped-point or core <u>ID</u> on the Area Map pages will access the specific core's information in the Core Data Table. The first column of the table contains Core <u>ID</u>, and four other columns contain previews and downloadable files for Core Description Sheets, Digitized Core Logs, Grain-Size Data, and Core Photographs pertaining to each Core ID row.

Process_Date: 2009 and 2010

Process_Step:

Process_Description:

Data Series preparation: In addition to the process steps described above, the following steps were taken to produce this Data Series report: the handwritten logs were scanned and saved as PDF files, digital FACS logs were created using the handwritten logs and personal accounts of the crew members and saved as accessible PDF files, and an HTML-based format was used to present the various parts of this archive.

Process_Date: 2010

Spatial_Reference_Information:

Horizontal Coordinate System Definition:

Geographic:

Latitude_Resolution: 0.000009 Longitude_Resolution: 0.000009

Geographic_Coordinate_Units: Decimal degrees

Geodetic_Model:

Horizontal_Datum_Name: North American Datum of 1983

Ellipsoid_Name: Geodetic Reference System 80

Semi-major_Axis: 6378137.000000

Denominator of Flattening Ratio: 298.257222

Spatial Data Organization Information:

Indirect_Spatial_Reference:

Horizontal x and y locations (latitude and longitude in decimal degrees) for each core are provided in logbook, <u>FACS</u> files, or description sheet profiles, along with the date and time of the vibracoring process (if available). The files in the 07SCC Shapefile subdirectory contain point data relevant to all the vibracores collected for the 07SCC04 and 07SCC05 surveys in the summer of 2007. The files in the CI87 Shapefile subdirectory contain point data relevant to all the vibracores collected for the 87039 survey (CI-87 vibracores) collected in 1987.

Direct_Spatial_Reference_Method: Vector Point_and_Vector_Object_Information:

SDTS_Terms_Description:

SDTS_Point_and_Vector_Object_Type: Entity point

Point_and_Vector_Object_Count: 124

SDTS_Terms_Description:

SDTS Point and Vector Object Type: Entity point

Point_and_Vector_Object_Count: 71

Entity_and_Attribute_Information:

Overview_Description:

Entity_and_Attribute_Overview:

Downloadable files: HTML folder contains all HTML pages. The Core Data Table's interactive sedimentary data information is accessible for download through Data_Table.html or from the Table_Data folder. The Maps folder contains printable study area maps. Software folder contains ESRI Arc files for GIS maps, and the digitizing directions and macro for converting analog data to digital. View the disc's Contents section to see a layout of these folders and files.

Entity_and_Attribute_Detail_Citation:

All files were created and (or) modified from the original by the originators of this archive.

Entity_and_Attribute_Detail_Citation:

Brooks, G.R., Kindinger, J.L., Penland, S., Williams, S.J., and McBride, R.A., 1995, East Louisiana continental shelf sediments: A product of delta reworking, Journal of Coastal Research, v. 11 no. 4, p. 1026-1036.

Entity_and_Attribute_Detail_Citation:

Baldwin, W.E., Pendleton, E.A., and Twichell, D.C., 2009, Geophysical data from offshore of the Chandeleur Islands, Eastern Mississippi Delta, U.S. Geological Survey Open-File Report 2008-1195. (Available at http://woodshole.er.usgs.gov/pubs/of2008-1195/.)

Entity_and_Attribute_Detail_Citation:

Dreher, C.A., Flocks, J.G., Ferina, N.F., and Kulp, M.A., 2008, Archive of sediment data collected from Sandy Point to Belle Pass, Louisiana, 1983 through 2000 (Vibracore surveys: 00SCC, CR83, and P86): U.S. Geological Survey Data Series 344. (Available at http://pubs.usgs.gov/ds/344/.)

Entity_and_Attribute_Detail_Citation:

<u>Flocks</u>, J.G., 2004, Converting analog interpretative data to digital formats for use in database and <u>GIS</u> applications: <u>U.S.</u> Geological Survey Open-File Report, 2004-1070. (Available at http://pubs.usgs.gov/of/2004/1070/)

Entity_and_Attribute_Detail_Citation:

Flocks, J.G., 2008, Directions for converting analog sediment core description sheets to digital spreadsheet format Microsoft Excel macro digitizing program and accompanying text available in Programs Data directory, 16 p. in Dreher, C.A., Flocks, J.G., Ferina, N.F., and Kulp, M.A., 2008, Archive of sediment-vibracore data collected from Sandy Point to Belle Pass, Louisiana, 1983 through 2000 (Vibracore surveys: 00SCC, CR83, and P86): U.S. Geological Survey Data Series 344. (Available at http://pubs.usgs.gov/ds/344/)

Entity_and_Attribute_Detail_Citation:

Flocks, James, Twichell, David, Sanford, Jordan, Pendleton, Elizabeth, and Baldwin, Wayne, 2009, Sediment sampling analysis to define quality of sand resources, *in* Lavoie, Dawn, ed., Chapter F of Sand resources, regional geology, and coastal processes of the Chandeleur Islands coastal system: An evaluation of the Breton National Wildlife Refuge: U.S. Geological Survey, Scientific Information Report 2009-5252, p. 99-121.

Entity_and_Attribute_Detail_Citation:

Folk, R.L., 1968, Petrology of sedimentary rocks: Austin, TX, University of Texas Press, p. 167

Entity_and_Attribute_Detail_Citation:

Hobson, R.D., 1979, Definition and use of the phi grade scale: U.S. Army Corp of Engineers Coastal Engineering Research Center, Coastal Engineering Technical Aid No. 79-7, 18 p.

Entity_and_Attribute_Detail_Citation:

Inman, D.L., 1952, Measures for describing the size distribution of sediments: Journal of Sedimentary Petrology, v. 22, no. 3, p. 175-188.

Entity_and_Attribute_Detail_Citation:

Kindinger, Jack, Flocks, James, Kulp, Mark, and Penland, Shea, 2001, Sand resources, regional geology, and coastal processes for the restoration of the Barataria Barrier shoreline: U.S. Geological Survey Open-File Report 01-384, 69

p.

Entity_and_Attribute_Detail_Citation:

Kindinger, J.L., Penland, S., Williams, S.J., Brooks, G.R., Suter, J.R., and McBride, R.A., 1991, Late quaternary geologic framework, North-central Gulf of Mexico: Coastal Sediments '91, v. 1, p. 1096-1110.

Entity_and_Attribute_Detail_Citation:

Kindinger, J.L., Penland, S., Williams, S.J., and Suter, J.R., 1989, Inner shelf deposits of the Louisiana-Mississippi-Alabama region, Gulf of Mexico: Gulf Coast Association of Geological Societies, 39th Annual Meeting; and Gulf Coast Section SEPM, 36th Annual Meeting; Transactions - Gulf Coast Association of Geological Societies, v. 39, p. 413-420.

Entity_and_Attribute_Detail_Citation:

Krumbein, W.C., 1938, Size frequency distribution of sediments and the phi normal curve: Journal of Sedimentary Petrology, v. 18, p.84-90.

Entity_and_Attribute_Detail_Citation:

Twichell, David, Pendleton, Elizabeth, Baldwin, Wayne, and Flocks, James, 2009, Geologic mapping of distribution and volume of potential resources, *in* Lavoie, Dawn, ed., Chapter E of Sand resources, regional geology, and coastal processes of the Chandeleur Islands coastal system: An evaluation of the Breton National Wildlife Refuge: U.S. Geological Survey, Scientific Information Report 2009-5252, p. 75-95.

Entity_and_Attribute_Detail_Citation:

<u>USACE</u>, 1977, Shore protection manual (3rd ed.): Vicksburg, <u>MS</u>, <u>U.S</u>. Army Corp of Engineers, Coastal Engineering Research Center, v. II, p. 1-59.

Entity_and_Attribute_Detail_Citation:

Wentworth, C.K., 1922, A scale of grade and class terms for clastic sediments: Journal of Geology, v. 30, p. 377-392.

Entity_and_Attribute_Overview:

Graphic image file: Printable maps of core locations are available as JPEG images. Interactive maps of core locations are available as HTML pages with accompanying JPEG images. The maps contain links to the Core Data Table providing description sheets, profiles, grain-size analysis, and photographs.

Entity and Attribute Overview:

Detailed FACS log metadata information for the <u>USGS</u> 07SCC04, 07SCC05, and 87039, as well as related cruises in the Louisiana and the Northern Gulf of Mexico coastal area, are published on the <u>USGS</u> CMG Regions (Gulf of Mexico) Data and Metadata Infobank Web site.

Entity_and_Attribute_Detail_Citation:

<u>http://walrus.wr.usqs.gov/infobank/programs/html/regions2idshtml/gm_ids.html</u>
Entity and Attribute Detail Citation:

Metadata Cruise Report: http://quashnet.er.usgs.gov/data/1987/87039/archive/87039rpt.pdf

Entity and Attribute Overview:

GIS file: The GIS project used to create the vibracore maps is provided as a .zip file composed of ESRI map documents, shapefiles, and metadata.

Detailed_Description:

Entity_Type:

Entity_Type_Label: Complete Data Series

Entity_Type_Definition:

Archive of Sediment Data Collected around the Chandeleur Islands and

Breton Island in 2007 and 1987 (Vibracore Surveys: 07SCC04, 07SCC05, and 87039)

Entity_Type_Definition_Source:
pubs.usgs.gov/ds/542/index.html

Distribution_Information:

Distributor:

Contact_Information:

Contact_Person_Primary:

Contact_Person: Flocks, James

Contact Organization: U.S. Geological Survey

Contact_Organization_Primary:

Contact_Organization: U.S. Geological Survey

Contact_Person: Flocks, James

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Country: USA

Contact_Voice_Telephone: (727) 803-8747, ext. 3012 Contact_Electronic_Mail_Address: jflocks@usgs.gov

Contact_Instructions:

All of this report is available on-line.

Resource_Description: U.S. Geological Survey Data Series 542

Distribution_Liability:

This <u>DVD</u> publication was prepared by an agency of the United States Government. Although these data have been processed successfully on a computer system at the U.S. Geological Survey, no warranty expressed or implied is made regarding the display or utility of the data on any other system, nor shall the act of distribution imply any such warranty. The <u>U.S.</u> Geological Survey shall not be held liable for improper or incorrect use of the data described and (or) contained herein. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof.

Standard_Order_Process:

Digital_Form:

Digital_Transfer_Information:

Format_Name: ..HTML/Data_Table.html

Format_Specification: Archive of Sediment Data Collected around the Chandeleur Islands and Breton Island in 2007 and 1987 (Vibracore

Surveys: 07SCC04, 07SCC05, and 87039)

Format_Information_Content:

All downloadable sedimentary data files for all vibracores of the 07SCC04, 07SCC05, and 87039 cruises. Folders contain downloadable and linked documents (JPEG, GIF, PDF, XLS, TXT) to the Core Data Table page.

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                       Digital_Transfer_Information:
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                             Format Information Content:
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                                  composed of map documents, shapefiles, and metadata. Map
                                  documents were created with ESRI ArcGIS 8.3 software. The
                                  shapefiles provided may also be viewed using other versions of
                                  ArcGIS, ArcView, or the public domain software ArcExplorer
                                   (http://www.esri.com/software/arcexplorer/index.html).
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                                              /ARC/Arc_CI.zip
                       Fees:
                             Prices vary.
                       Ordering_Instructions:
                             Publications are available from USGS Information Services, Box
                             25286, Federal Center, Denver, CO 80225-0046 (telephone: 1-888-
                             ASK-USGS, email: infoservices@usgs.gov).
Metadata_Reference_Information:
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     Metadata_Contact:
           Contact_Information:
                 Contact_Person_Primary:
                       Contact_Person: Chandra A. Dreher
                       Contact_Organization: U.S. Geological Survey
                 Contact Position: Geologist
                 Contact Address:
                       Address_Type: mailing and physical
                       Address: 600 4th Street South
```

City: St. Petersburg
State_or_Province: FL
Postal Code: 33701

Country: USA

Contact_Voice_Telephone: (727) 803-8747, ext. 3137 Contact_Electronic_Mail_Address: cdreher@usgs.gov

Metadata_Standard_Name: Content Standard for Digital Geospatial Metadata

Metadata_Standard_Version: FGDC-STD-001-1998

<u>Home</u> | <u>Acronyms</u> | <u>Contents</u> | <u>Methods</u> | <u>Maps</u> | <u>Core Data Table</u> | <u>Core Description</u>

<u>Sheets</u> | <u>Digitized Core Logs</u> | <u>Grain-Size Data</u> | <u>Core Photographs</u> | <u>Field Logs</u> | <u>Metadata</u> | <u>Software</u>

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Page Last Modified: Tuesday, 12-October-2010 3:00 PM EST